

APR 14 2006

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PTO/SB/21 (09-04)

<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)	Application Number	09/768,458	
	Filing Date	1/25/2001	
	First Named Inventor	Kraft et al.	
	Art Unit	3677	
	Examiner Name	JACKSON, Andre L.	
Total Number of Pages in This Submission	18	Attorney Docket Number	ARC920000101US1

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/Declaration(s) <input type="checkbox"/> Extension of Time <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation, Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input checked="" type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	Lacasse & Associates, LLC		
Signature	<i>Ram Soundararajan</i>		
Printed Name	Ramraj Soundararajan		
Date	04/14/06	Reg. No.	53832

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
Signature	<i>Ram Soundararajan</i>		
Typed or printed name	Ramraj Soundararajan	Date	04/14/06

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Docket: ARC920000101US1  
Application: 09/768,458

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED  
CENTRAL FAX CENTER

In re Application of: KRAFT et al.

APR 14 2006

Serial No.: 09/768,458

Art Unit: 3677

Filed: 1/25/2001

Examiner: Andre L. Jackson

Title: *Enhancing Sales for Service Providers by Utilizing an Opportunistic Approach  
Based on an Unexpected Change in Schedule of Services (time, location)*

REPLY BRIEF

Attn: Board of Patent Appeals and Interferences  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Examiner's Answer dated February 14, 2006, Applicants submit the following reply.

Docket: ARC920000101US1  
Application: 09/768,458

### CLAIMS

1. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, said system comprising:
  - an event retriever, said event retriever generating an event pair which comprises a target value and an actual value associated with said schedule of services;
  - an event observer, said event observer receiving said event pairs from said event retriever, calculating the difference between said actual and target value, and based on one or more rules from a first set of rules, identifying and notifying a window of opportunity detector regarding potential windows of opportunities, wherein each potential window of opportunity defines a time period of customer inactivity;
  - said window of opportunity detector, which receives said potential windows opportunities, detects, based on one or more rules from a set of second rules, if a window of opportunity exists, and if so, matches said detected windows of opportunities with service providers for the purposes of providing a new product or a service separate from said scheduled service.
2. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said event retriever further utilizes service provider schema information stored in a service provider schema database to generate said event pairs.

Docket: ARC920000101US1  
Application: 09/768,458

3. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 2, wherein said service provider schema is a document type definition (DTD).
4. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 2, wherein said service provider schema is an XML schema.
5. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said one or more rules from said set of first rules is a threshold rule, and said potential windows of opportunities are identified based on comparing said difference between said actual and target value against said threshold.
6. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said one or more rules from said set of second rules are provided externally by said service providers.
7. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said system further accesses a subscription management service wherein said events and schedules are defined for tracking.
8. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said one more

Docket: ARC920000101031  
Application: 09/768,458

rules of said set of first and one or more rules of a set of second rules are stored in a rule database.

9. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said events are Internet Calendaring and Scheduling Core Object Specification (iCalendar) events.
10. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said event retriever further comprises:
  - an enhanced gatherer, which dynamically receives information from service providers over a network using simulated user interaction, and
  - a pattern matcher, which extracts said event pair from said received information based on matching the structure of said received information with that of a stored schema of said service providers.
11. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 10, wherein said enhanced gatherer is a web crawler.
12. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 10, wherein said network comprises any of the following: local area networks (LANs), wide area networks (WANs), wireless networks, or the Internet.

Docket: ARC920000101US1  
Application: 09/768,458

13. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said received event pairs are extracted from a markup language form.
15. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, wherein said step of detecting a window of opportunity comprises of:
- electronically acquiring service schedules of one or more service providers;
  - detecting an unexpected change in said schedule;
  - checking if potential customers are blocked due to said unexpected change in schedule, said blocking defining a period of inactivity;
  - detecting one or more potential windows of opportunities for sales to said potential customers;
  - checking if service providers benefit from said detected potential windows of opportunities, and
  - providing notification regarding said potential windows of opportunities to service providers who benefit from such information, and
  - wherein said service providers offer a new product or service separate from said scheduled service to said potential customer during said period of inactivity.
16. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 15, wherein said step of detecting an unexpected change in said schedule further comprises:

Docket: ARC920000101US1  
Application: 09/768,458

simulating user interaction via data gathering software to request data from service providers via a network;

receiving information from said service providers via said network;

accessing a service provider schema database and reading schema regarding said service providers;

matching said received information with said read schema associated with said service providers, and

extracting data events, comprising actual and target data, based on said matching step.

17. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 16, wherein said network comprises any of the following: local area networks (LANs), wide area networks (WANs), wireless networks, or the Internet.
18. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 15, wherein said data gathering software comprises data mining software.
19. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 15, wherein said extracted data events are iCalendar events.
20. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, wherein said method comprising:

Docket: ARC920000101081  
Application: 09/768,458

extracting standardized event data comprising an actual event value and a target value from said travel service provider via a network;

comparing, based on one or more rules from a set of first rules, the difference of said actual value and target value against a threshold value;

detecting a window of opportunity based on one or more rules from a set of second rules, and

distributing said window of opportunity information to said service providers for enhancing said service provider's sales, if said detection of window of opportunity occurs said sales providers providing a new product or a new service separate from said scheduled service.

21. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said travel services comprises any of: airlines, trains, or buses.

22. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said event data is arrival or departure times and locations associated with said specific airline.

23. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said one or more rules from said set of first rules is based on said difference of actual and target values being above or below a predetermined threshold.



Docket: ARC920000101051  
Application: 09/768,458

24. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said one or more rules from said set of second rules is based on rules provided by service providers.
25. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 24, wherein said rules provided by service providers are stored in a rules database.
26. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said step of extracting standardized event data further comprises:
- accessing said travel service provider's webpage over a network;
  - posting data regarding a specific travel provider in said webpage and querying for information regarding schedule of said specific travel service;
  - receiving a web document from said travel service provider regarding said schedule of said specific travel provider;
  - accessing a service provider schema database and reading a schema associated with said travel service provider;
  - matching said received web document with said read schema and extracting event data,
  - and
  - standardizing said extracted event data.
27. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 24, wherein said

Docket: ARC920000101US1  
Application: 09/768,458

network comprises any of the following: local area networks (LANs), wide area networks (WANs), wireless networks, or the Internet.

28. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 26, wherein said step of posting data is accomplished using a HTTP POST command.
29. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 26, wherein said web document is of any of following formats: HTML, SGML, or XML.
30. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 26, wherein said read schema is an XML schema.
31. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 26, wherein said read schema is a DTD.
32. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 26, wherein said step of standardizing involves standardizing based on iCalendar standard.
33. An article of manufacture comprising a computer user medium having computer readable code embodied therein which provides for a e-commerce method for enhancing sales to potential customers, said article comprising:

Docket: ARC920000101US1  
Application: 09/768,458

computer readable code electronically acquiring service schedules of one or more service providers;

computer readable code detecting an unexpected change in said schedule;

checking if potential customers are blocked due to said unexpected change in schedule, said blocking defining a period of inactivity;

computer readable code detecting one or more windows of opportunities for sales to said potential customers;

computer readable code checking if service providers benefit from said detected potential windows of opportunities, and

computer readable code providing notification regarding said potential windows of opportunities to service providers who benefit from such information, wherein said service providers offer a new product or service separate from said scheduled service to said potential customers during said period of inactivity.

Docket: ARC920000101US1  
Application: 09/768,458

### REMARKS

This Reply Brief is in response to the Examiner's Answer dated February 14, 2006. Reconsideration of this application is respectfully requested in view of the foregoing remarks. In addition, all of the arguments in the appeal brief of November 18, 2005, and prior responses should also be considered in support of the claimed elements provided in the present invention.

### STATUS OF CLAIMS

Claims 1-13 and 15-33 are pending.

Claims 1, 2, 5-10, 12, 15-17, 19-28, 32, and 33 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,810,527 to Conrad et al.

Claims 3, 4, 11, 13, 18, and 29-31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Conrad et al.

### RESPONSE TO EXAMINER'S ANSWER

In page 6 of the Examiner's Answer of 02/14/2006, the Examiner, with respect to independent claim 1, states that the Conrad's airline as described in column 4, lines 20-22 teaches claim 1's feature of an event retriever that generates an event pair which comprises a target value and an actual value. Further, on page 7 of the Examiner's Answer of 02/14/2006, the Examiner interprets Conrad's local operation center (LOC) or global operations center (GOC) to claim 1's event observer. Specifically, the Examiner's Answer asserts that column 9, lines 29-32 and column 10, lines 34-38 of Conrad teach how "LOC/GOC notifies an onboard controller and an onboard media server of the aircraft as to what and how much content is to be provided to the passengers during a period of inactivity".

*Page 11 of 17*

Docket: ARC9200001010S1  
Application: 09/768,458

Applicants respectfully disagree with this statement. The Examiner's citation of column 9, lines 29-38 of Conrad is produced verbatim below:

*"Should reception not be available due to unforeseen circumstances prior to take-off such as diversions in routes, severe weather conditions, and malfunction of equipment, the on-board controller (222), in communication with a cabin system interface (215), is equipped to switch to pre-recorded content when reception is interrupted or a program segment cannot be viewed in full without interruption because of a change in the controlled environment of the plane such as for example, an earlier than scheduled landing due to aircraft equipment malfunctioning."*  
(emphasis added)

As seen above, column 9, lines 29-32 merely outlines a scenario when "reception is not available" and, hence, no external communication is possible. Applicants are unsure how the Examiner can use this citation to assert that a LOC/GOC can notify an onboard controller and an onboard media server of the aircraft when the citation clearly states that such communication is not possible in the outlined scenario.

The Examiner's citation of column 10, lines 34-38 of Conrad is produced verbatim below:

Page 12 of 17

Docket: ARC920000101051  
Application: 09/768,458

“Furthermore, if any delays, weather conditions, traffic or other situations arise during flight, upon receipt of such information, *the server (220) will act to respond to those variables which may alter play-out schedules.*” (emphasis added)

This citation directly contradicts the Examiner’s conclusion that “the LOC/GOC notifies an onboard controller and an onboard media server of the aircraft as to what and how much content is to be provided to the passengers during a period of inactivity” as the citation clearly states that if there is a delay, the server 220 responds by altering play-out schedules without any mention of the LOC/GOC communicating with the on-board controller or the on-board server to alter content.

Further, on page 7 of the Examiner’s Answer, the examiner states that the “onboard controller and onboard media server acts as a detector”. Applicants respectfully disagree with the Examiner’s assertion of equating Conrad’s onboard controller/onboard media server to Applicants’ window of opportunity detector. Specifically, even for argument sakes, if it were assumed as the Examiner suggests that Conrad’s LOC/GOC can be equated to Applicants’ event observer and if it were further assumed that Conrad’s controller and media server can be equated to Applicants’ window of opportunity detector, it should be emphasized that there is no teaching or suggestion in the Conrad reference for the LOC/GOC to identify and notify the controller/server regarding potential windows of opportunities, wherein each potential window of opportunity defines a period of inactivity.

Page 13 of 17

Docket: ARC920000101US1  
Application: 09/768,458

Claim 1 also provides for the feature of the window of opportunity detector matching detected window of opportunities with service providers. Applicants wish to emphasize that there neither an explicit nor implicit recitation in Conrad for the media server (which by the Examiner's statement on page 7 or the Examiner's Answer is equated to Applicants' window of opportunity detector) to match detected windows of opportunities with service providers for the purpose of providing a new product or a service separate from the scheduled service. Absent such a showing, Conrad can neither anticipate nor render obvious the features of claim 1.

With respect to claim 15, the examiner maintains his 35 U.S.C. 102 rejection, but has once again failed to provide specifics with regards to where in the Conrad reference at least the following features are addressed:

1. checking if potential customers are blocked due to said unexpected change in schedule, said blocking defining a period of inactivity;
2. detecting one or more potential windows of opportunities for sales to said potential customers;
3. checking if service providers benefit from said detected potential windows of opportunities, and
4. providing notification regarding said potential windows of opportunities to service providers who benefit from such information, and
5. wherein said service providers offer a new product or service separate from said scheduled service to said potential customer during said period of inactivity.

*Page 14 of 17*

Docket: ARC920000101US1  
Application: 09/768,458

The Examiner states on page 8 of the Examiner's Answer that the "GOC/LOC configures and maintains advertisement schedules from the advertisers, send complete advertisement schedules back to the advertisers for settlement and completeness, then the advertisement schedules are up-loaded from the GOC/LOC to be distributed to an appropriate LOC and lastly to the onboard controller/onboard server". However, nowhere on page 8 has the Examiner addressed how the GOC/LOC or the onboard controller/onboard server: (1) checks to see if service providers benefit from a detected window of opportunity; (2) provides notification regarding windows of opportunities to service providers who benefit from such information, wherein the service providers use this information to offer a new product or service separate from the scheduled service to a potential customer during the period of inactivity. Absent such a showing, Conrad can neither anticipate nor render obvious Applicants' claims 15. The above-arguments substantially apply for claim 33 as it recites similar features. Applicants, hence, maintain that Conrad can neither anticipate nor render obvious Applicants' claims 30

Similarly, with respect to claim 20, the examiner maintains his 35 U.S.C. 102 rejection, but has once again failed to provide specifics with regards to where in the Conrad reference at least the following features are addressed:

1. extracting standardized event data comprising an actual event value and a target value from said travel service provider via a network;
2. comparing, based on one or more rules from a set of first rules, the difference of said actual value and target value against a threshold value;



Docket: ARC920000101US1  
Application: 09/768,458

3. detecting a window of opportunity based on one or more rules from a set of second rules, and
4. distributing said window of opportunity information to said service providers for enhancing said service provider's sales, if said detection of window of opportunity occurs said sales providers providing a new product or a new service separate from said scheduled service.

Applicants maintain that the Conrad reference fails to teach or suggest the above-features. However, nowhere on page 8 has the Examiner addressed how the GOC/LOC or the onboard controller/onboard server: (1) comparing, based on one or more rules from a set of first rules, the difference of said actual value and target value against a threshold value; (2) distributing said window of opportunity information to said service providers for enhancing said service provider's sales, if said detection of window of opportunity occurs said sales providers providing a new product or a new service separate from said scheduled service. Absent such a showing, Conrad can neither anticipate nor render obvious Applicants' claims 20.


#### SUMMARY

None of the references, cited or applied, provide for the specific claimed details of applicants' presently claimed invention, nor renders them obvious. It is believed that this case is in condition for allowance and reconsideration thereof and early issuance is respectfully requested.

Docket: ARC920000101051  
Application: 09/768,458

As this Reply Brief has been timely filed within the set period of response, no fee for extension of time is required. However, the Commissioner is hereby authorized to charge any deficiencies to Deposit Account No. 09-0441.

Respectfully submitted,

  
Ramraj Soundararajan  
Registration No. 53,832

1725 Duke Street  
Suite 650  
Alexandria, Virginia 22314  
(703) 838-7683  
April 14, 2006